

Student: Arden Gillchrest

Mentor: Avigail Sachs

Sites:

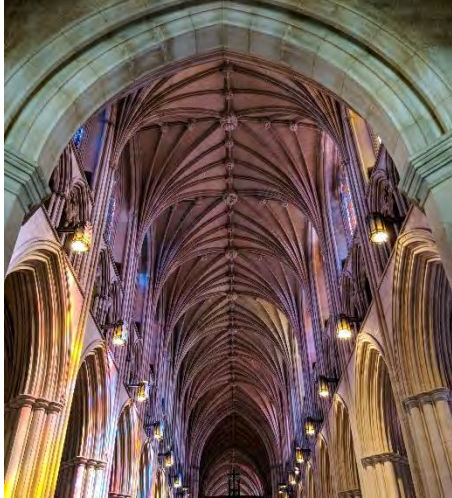
1. Washington National Cathedral
 - a. Architecture and Culture: Gothic Revival / English
 - b. Located in: Washington DC.
2. Chaco Culture National Historical Park / Mesa Verde National Park
 - a. Architecture and Culture: Ancient Puebloan
 - b. Located in: New Mexico and Colorado
3. San Antonio Missions National Historical Park
 - a. Architecture and Culture: Latino and European Decent / Spanish Mission
 - b. Located in: San Antonio, Texas
4. Byodo-In Temple Memorial Park
 - a. Architecture and Culture: Japanese (references Fujiware Regent Period)
 - b. Located in: Kahaluu, O'ahu, Hawaii

Institution:

University of Tennessee, Knoxville College of Architecture and Design.

Alternative Architectural Trajectories

Understanding the Impact of Power within Religious Architecture in the American Context



¹4 Sites, Located in DC, San Antonio, Mesa Verde, and O'ahu

¹ Personal Images. Author

With the heightened political awareness, activity, and conversation that has permeated media and intrinsically rooted itself in our everyday lives in the past two decades, it should come as no surprise that politics too has drastically affected the way we see our architecture and societal institutions. However, this tradition began long before social media, and the synchronized talking heads of today's media giants. Architecture, politics, and more importantly power have always been fundamentally connected to one another. We perceive civic and religious architecture not just through form but of metaphorical representation. Much like our national political divide, civic and religious architecture is a permanent reminder of the institutions they house. Architecture is a manifestation of symbols, people, and ritual as much as an assemblage of aesthetic structural elements to reside within. Architecture has metastasized beyond the brick and mortar and permeated the very ideas of human behavior and yet to many we still think of this field as 3D object making. Recent national examples now highlight this way of thinking about architecture. The United States Capitol, a symbol of democracy now to many is a reminder of political unrest. Many religious institutions represent a range of emotions from faith to hypocrisy, and yet people commonly think of the same thing when we hear "church" or "mosque". Even our courthouses and libraries are subject to national debates on the representation of America's standards and expectations. The American standard is the civic neo-classical white dome of the nation's capital and the common church steeple that both come to mind when we think of church and state.

One of the most obvious ways to see architecture's power of representation is by looking to the grandest and most obvious interpretations of power, our religious architecture. Within the American context, religious architecture is intrinsically connected to political power. Whether through its site context, parishioners, scale, or history, often our religious architecture serves as a

symbol of our shared community, beliefs, and rituals. By understanding these buildings, their symbols, ceremonies, form, and conscious we can begin to understand the deep connection between architecture, power, religion, and the human condition.

In the American perspective, we can dissect the differences in cultures and architectural form to begin to create pathways that highlight commonality in architecture's ability to bring people together and likewise, tear them apart. Architecture's ability to do both is a testament to its direct authority in creating political and physical boundaries that catalyze the power of those who control the architecture and its symbolism. The religious symbols and the political structures we create change and transform between cultures and national boundaries, and this presents the precise need to have educated, scholarly, and humble architects. There is a great need for the profession to create, listen, and inspire communities to engage and understand more than just the buildings look or aesthetics. The questions posed to our field when engaging in the realm and overlap of political philosophy or power projection in architecture are broad and hard to narrow down with a concise answer. How can architects better understand cultural differences and their roles in shaping architectural expressions and vernacular within the United States? How do historical events and actions alter the trajectory of religious interpretations and expressions in architecture? How do religious sites, expressions, and beliefs alter architectural interpretations of power in America? What do the religious spaces of tomorrow look like?

This research sought to understand and answer these architectural questions by not only examining four different sites but by proposing alternative American trajectories to provide context and comparison between them. These four sites within the American context include; the ancient Puebloan settlements of Chaco Canyon and Mesa Verde in New Mexico and Colorado, the Spanish settlements of the San Antonio Missions in Texas, the Japanese Buddhist Byodo-In

Temple in Hawaii, and the English Washington National Cathedral by Philip Frohman, George Bodley, and Henry Vaughan, in Washington DC. All four of these structures were built at differing periods, by differing cultures and peoples, for similar purposes all within the context of the modern geography of the United States. Each of these religious sites represents an alternative approach in power projection, religious ritual, and control of human behavior. Within them are stark differences, and yet a common connection of religious ritual within site and a need to project the grandeur of religion, faith, and culture. To help categorize and understand the very subjective nature of “success” in this research, I identified three categories each site possessed that were of intrinsic importance to the understanding of the architecture:

1. Site, Orientation, and Context
2. Materiality, Labor, and Construction
3. Ritual, Access, and Ceremony

When Choosing these sites, I proposed a contrast and the common narrative of power projection we know today, the “winning” English example of typically European inspired styling and orthogonal city planning that dominates the American landscape. In order to do this, I chose a “control” within the English tradition. The largest but most audacious example of western religious architecture that is the National Cathedral in Washington DC. From this “control”, one can compare alternative architectural histories in order to formulate a more comprehensive possibility into the power of architecture. In contrast to the English example, I chose Puebloan, Spanish, and Japanese architectural examples found in areas of the United States where each respective culture at some point laid claim, possess, or attempted to possess land.

Each one of these societies influenced not only architecture but the trajectory of the land and people it claimed, which can still be seen at each site today. When visiting these sites, I was profoundly impacted by the people and their histories as much as the architecture itself. The commonalities between sites were strongest in the local community's reverence and pride in the cultural significance of their architecture. The complexity of these sites, the sacred rituals they held, and the timeless artifacts and traditions that have been created because of them are too numerous to catalogue in one journey. Examining these four sites through the framework of the three categories described allowed for important comparisons to be made in understanding architecture's role in representing and projecting religious power

Washington National Cathedral, Washington DC

Architects: Philip Frohman, George Bodley, and Henry Vaughan



²Looking Upward, Washington National Cathedral, Washington DC.

A Brief History



³ Cathedral of Saint Peter and Saint Paul, Washington DC. Under construction in April of 1925. Image from Library of Congress.

The Cathedral of Saint Peter and Saint Paul, commonly referred to as Washington National Cathedral, was constructed in the Neo-gothic style. Completed 83 years to the day after its cornerstone was laid on September 29, 1907, the Cathedral stand as the 6th largest in the world, and 2nd largest in the United States. The Cathedral's construction was proposed after an original 30 acre site was purchased in 1898.⁴ The site itself is critical to the Cathedral's positioning within Washington, D.C, because this is one of the many ways the architecture

² Personal Image, Author

³ Harris & Ewing, photographer. *National Cathedral under construction. Washington, D.C.* [April or May] Photograph. Retrieved from the Library of Congress, <www.loc.gov/item/2016894194/>.

⁴ "Facts & Figures." *Washington National Cathedral*, cathedral.org/architecture/facts-figures/.

projects its power over not just those who visit but the entire city context. Washington, D.C. is in many ways the physical representation of the United States Federal Government, one that was founded on the notions of religious freedom and tolerance. Religion, specifically protestant Christianity has been influential since America's foundation, and has been the foundation of many of its communities, laws, and doctrines.

In an effort to solidify the history and importance of protestant Christianity in America's history the Episcopal cathedral was chartered by U.S. Congress in 1893. The cornerstone was laid by President Theodore Roosevelt on the highest point of the city, Mount St. Alban.⁵ The significance of the site cannot be understated, as the site is visible from every point within the city, and sits higher than the national mall, and all civic and government architecture. The Cathedral was finally completed in 1990, after periods of construction were halted in the decades prior. Upon its completion the Cathedral weighed 150,000 tons and had a total cost of over \$65 million.

I chose this building as the traditionally English American example, because it is the largest and most glaring example of religious architecture whose orientation, style, and scale directly relate to the building's programming and purpose: power.

⁵ "Washington National Cathedral | History & Facts." *Encyclopedia Britannica*, www.britannica.com/topic/Washington-National-Cathedral.

Site, Orientation, and Context



⁶ Looking down to the Federal Government, Washington National Cathedral view from Towers.

When arriving to the city and landing at Reagan National Airport, you're greeted with the iconic skyline view of the Lincoln Memorial and Washington Monument – a familiar scene from media, television, and movies. Upon arrival to the National Mall, and examining the city center you will museums, galleries, departmental buildings, and the most recognizable, our federal government institutions. Rather fittingly you will also find no religious buildings. The mall is devoid of all religious iconography, a nod to the separation of church and state. Alexander Hamilton was responsible for editing out the original Grand Nondenominational Church, from the original L'Enfant plans, a detail that was widely forgotten until the proposal of a new

⁶ Personal Image, Author

national cathedral. Only an eagle-eyed historian would be able to spot the inscription on the top of the Washington monument whose Latin phrase translates to “Praise be to God”. The tallest building in the city hides this religious sentiment from most, but when you turn and look beyond the inner sanctum of the mall, the tallest structure by sea level is clearly visible. One whose very construction emboldens the idea, “Praise be to God.”

Sitting atop the tallest point in the city limits of Washington, D.C., the National Cathedral is a constant visual reminder of America’s religious identity and past. The National Cathedral’s Gloria and Excelsis Tower sits 676 ft above sea level overlooking the city⁷. This somewhat spoils the metaphorical city panning of the establishment clause but of course, that is its very reason for being constructed.

The tradition of building large scale structures at higher altitudes is not new, or even western in its existence, as these structures exist in Tibetan, Slavic, and Incan traditions as well. Often for defensive purposes these large structures included castles and fortifications whose presence were imposing and often very large in scale. It is here however in Washington, D.C. that this tradition is used not for its defensive high ground but for its ability to be seen over the rest of the gargantuan buildings that reside in Washington DC. Here the site is used as a critical piece of the architecture, in that the city’s plan designed by L’Enfant is presided over by the physical representation of the church. An architecture that represents a higher being sits in control of the men and women who lay beneath its tower’s gaze.

⁷ “Panorama: The View from D.C.’S Highest Spot.” *Washington Post*, www.washingtonpost.com/wp-srv/special/entertainment/dc-pano-view/#:~:text=The%20Washington%20Monument%20may%20be. Accessed 20 Dec. 2021.

The elevational context speaks to one way this building project power however it also does so through its stylistic choices. The buildings architectural style places it in a context of historical buildings that it both mimics and builds from. The buildings context to style is equally important because the choice of gothic architecture connotes a very different and much older representation of religion, one that predates the age of America. By choosing a distinctly European and well-regarded Gothic architecture referenced so often in religious institutions across Europe, the cathedral appears much older than it is. Construction only began in 1907, making it the second newest building that I visited and yet its architecture speaks to something much older from the European Dark Ages. This is one of the only examples of Gothic architecture within the city, and it uses this aesthetic as a visual reference to a much older building typology. The use of older gothic architectural style creates a narrative to reinforce the position of the church and connect with its past wisdom. This tradition is one that would predate many of the other institutions within the city. We can see this architectural trickery also used by the National Basilica, whose Catholic diocese reference a Byzantine architecture, which predates even the gothic tradition. This use by religious institutions to reference more ancient architecture is critical in the architecture representing an older ideal that substantiates the importance of the church. Ultimately, the site, elevation, and architectural scale all play an important role in the contextual ability of this architecture to represent the church itself and its national importance within America.

Material, Labor, and Construction



⁸ Final Resting Place of Helen Keller marked in braille , Washington National Cathedral

It is important when we analyze these religious institutions that we look beyond the materiality, and begin to look at the economic history regarding the architecture's construction. In this instance like the other buildings, it is important to understand the funding and rationale behind the building's construction. In this case, how was such a large building, chartered by Congress, constructed and not in violation of the establishment clause? A vital piece of our constitutional history that so centrally plays a role in our nation's function. The simple answer is not a single dime of tax money was used in its construction, rather it was funded by private donations.⁹ Despite this the structure is so often used and referenced by political figures it can be easy to believe otherwise.

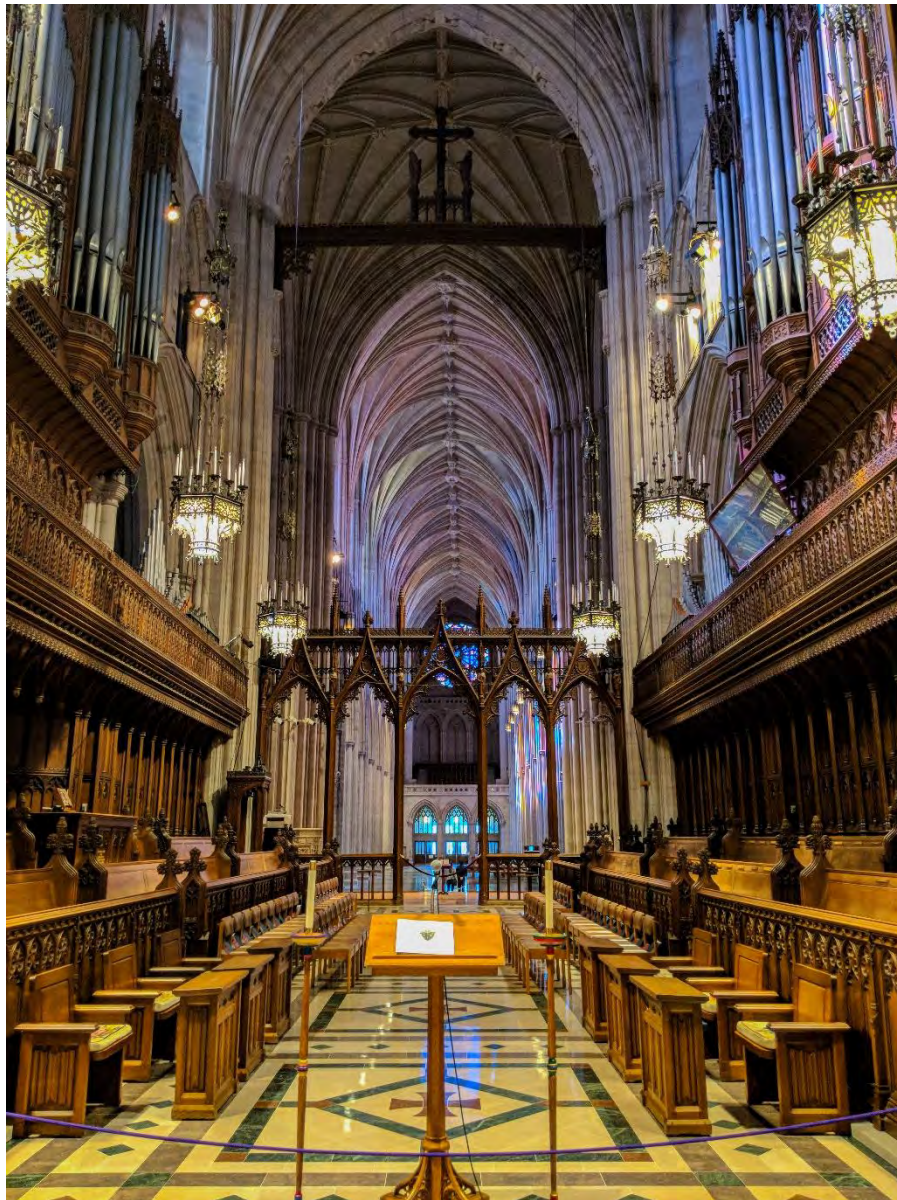
The building cost exceeded \$65 million to construct, which in today's money, considering inflation, would now likely cost well over half a billion dollars. This buildings price tag alone is a testament to its importance to not only its parishioners but the Episcopalian faith. A

⁸ Personal Image, Author

⁹ "Facts & Figures." *Washington National Cathedral*, cathedral.org/architecture/facts-figures/.

cathedral in the national capitol to rival all others internationally whose edifice can be seen by all visitors and residents of the city and is constant reminder of the church. Likewise, the buildings stone materiality creates a permanence and weight to the structure that's immediately noticeable upon visiting first. Over 150,000 tons of stone, was used in construction- the largest of which being The Moses Boss stone, weighs 5.5 tons. Such a heavy material provides a visual reference to the established and permanence of God. Beyond the sheer weight of the building, 288 angels adorn the towers, 112 gargoyles line the cathedrals pediments, 53 carillon bells fill the belfries, 10,650 pipes make up the great organ, and 215 stained glass windows shower the interior with light.¹⁰ This grand expanse of materials and wealth all imbue the power of the church in the architecture itself. Much like the gothic cathedrals of Europe this one continues that tradition in its scale, materiality, and construction.

¹⁰ ¹⁰ "Facts & Figures." *Washington National Cathedral*, cathedral.org/architecture/facts-figures/.



¹¹Monumental, Washington National Cathedral, DC

A few features do however buck the old traditions of Europe and help catapult this cathedral's power out of the Dark Ages. The modern conveniences of radiant floor heating, the addition of modern gargoyle figurines, and the use of it as a final resting place by national heroes

¹¹ Personal Image. Author

and figures also bring more modern elements from the past conventions. By adopting new practices within the façade of a gothic exterior, the church can provide a more comfortable modern viewing and religious service while still being embedded in past traditions. Likewise, the cathedral also boasts busts of famous characters from media, like Darth Vader, which bring tourists and children to the site to spot the religious oddity. The cathedral is also the notable burying place of past president Woodrow Wilson, American author Helen Keller, and university student Matthew Shepard. Though not uncommon for powerful and respected individuals to be interred in a cathedral, here adopting, and burying national figures is a main part of the identity of the architecture and space. Notably the cathedral is often most recognized by the funerals it holds for past national presidents, a key ritual that is viewed nationally from the walls of the gothic structure.

Ritual, Access, and Ceremony



¹² The Gothic Colonnade, Washington National Cathedral

¹² Personal Image, Author.

The most important aspect of this site, like so many of the other examples visited is that of ritual. Seen within the English, Spanish, Japanese, and Puebloan sites, ritual plays a critical part in how the architecture embodies the power of the religion and exerts that force on the occupant or visitor. The Washington cathedrals site dominates the skyline, the materiality and style embody the wealth and history of the church, and the spaces within bring the religion to the human. By being so monumental in scale, the visitor feels small and powerless in such a grand space, and this grandeur is in part thanks to the visual elements of gothic architecture that bring delight and awe to those who witness it. During my visit, I spoke to a curator at the cathedral, who explained the detailed work of architects Frohman, Bodley, and Vaugh and how they re-introduced gothic elements into the structure to help the building truly embody gothic references. One of which was a skewing of the nave. The cathedral is a few degrees off center at the transept thanks to these architects who wanted the cathedral to have the proper visual sightlines throughout the church. Likewise, the large gothic vaults draw the eye upward to a point, at which the viewer is looking upward to the heavens rather than at their feet. The colored stain glass that floods the cathedral with light thanks to its positioning along a roughly southwest to northeast axis also makes any occupant to continue to look upward. All these elements create an inhuman space, not because it is hostile but because it is so seemingly uncaring to the scale of those within. It is a space with reverence to something much bigger than the human scale and therefore the rituals of worship, prayer, song, or mourning are more impactful.

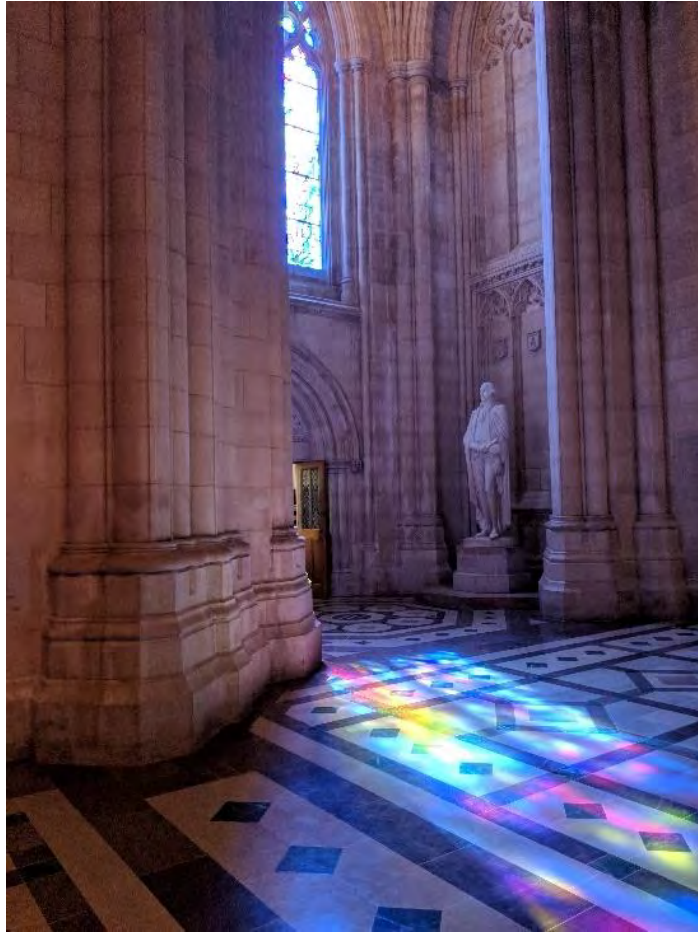
It is also important to understand the influence of monotheism on the architecture and ritual of the site. The cathedral itself is created to show glory to God and only those who were of the utmost piety. The church itself embodies the physical representation of the power of God in that it's floor plan is the traditional elongated gothic cross, a symbol of Protestant Christianity.

The cathedral pays homage to political American leaders but also to saints recognized within the Episcopalian denomination. Though these figures are honored none are placed above the level of Jesus Christ in this monotheistic faith, it should therefore come as no surprise that the architecture then in plan and in grandeur is solely constructed for the representation of one God, one who is vast and powerful like the architecture built to represent him.

Housing worship in a place like this reminds any visitor of the overwhelming power of God simply through the architecture of man. The ritual practice however of those events within the architecture enlivens the soul and once more evokes the feeling of God within a structure built by man. The funerals that so often take place for important figures within political history solidify the power of this architecture to attach to the narratives of those lives to ascertain more power. Ronald Reagan, George H.W. Bush, and Gerald Ford, all had state funerals in this cathedral, likewise every president going back to Reagan, excluding Bill Clinton held prayer services here before their inaugurations.¹³ These ceremonies once again broadcasted the architecture in unison with the services of these national figures and further cemented their connection to one another.

¹³ "Facts & Figures." *Washington National Cathedral*, cathedral.org/architecture/facts-figures/.

Conclusion



¹⁴Light Refractions, Washington National Cathedral

When I visited this site, I first understood the importance of site, context, and the positioning of this cathedral over the city layout, but when you approach from one of the most detailed city plans on earth, it is hard not to realize the matrix of power at play within the city. This cathedral while not on a clear axis endpoint sits off on a geographical node point, one that makes its presence known as much as a sculpted green lawn. The distinct white pillars of the

¹⁴ Personal Image, Author

towers overlooking the city in conjunction with the roaring tones of the bell towers are a constant reminder of the sacred religious nature of the site and its relationship with the government buildings around it. When I entered, I was immediately struck by the gothic façade and interior and the detailed carvings expected in such a grand place. The work continues to restore the cathedral after the earthquake in 2011 and virtual services have been held in during the Covid-19 pandemic, but like everything during this tumultuous time, these services lack the personal connections of people, and the architecture that makes this worship area so special. Ultimately, this church embodies site, materiality, and connection to the national political powers that make it an excellent example of power projected by architecture from an English perspective.

Chaco Cultural National Historic Park / Mesa Verde National Park

New Mexico and Colorado Ancient Puebloan Architecture



¹⁵Tower House, Mesa Verde National Park

¹⁵ Personal Image, Author

A Brief History



¹⁶ Long House, Mesa Verde National Park

Pre-dating every major western civilization to colonize or trade with what is present day America, the Puebloan people of the American Southwest possessed an advanced architecture, culture, and trade network that was more far complex than ever thought possible by a pre-Columbian society. These indigenous tribes created a civilization whose relics and verbal

¹⁶ Personal Image. Author

histories are still passed down today by many of the Native American tribes who still inhabit the lands around these sacred sites.

I would like to be clear regarding this research that 26 tribes are associated with and have relationships with the land that Mesa Verde National Park resides on, a majority of these are Puebloan and their ancestral connection is the strongest to suggest they were the original builders of these sites. The Chaco society who built Pueblo Bonito reached its peak around 1020 and many of its architectural accomplishments, religious practices, and societal structures were likely passed down through the Pueblo people. It is for this reason I have labeled both these sites Puebloan and can compare both to the different trajectories of power in architecture outlined in this essay. The Puebloan descriptor refers to numerous tribes including the Taos, Picuris, Sandia, Isleta, Ohkay, Owingeh, Santa Clara, San Ildefonso, Nambe, Tesuque, Jemez, Cochiti, Pojoaque, Santo Domingo, San Felipe, Santa Ana, Zia, Laguna, Acoma, and Zuni. Other tribes that are not Pueblo but have connections to the Mesa Verde site also include the Hopi of Arizona, Yselte del Sur Pueblo of Texas, Navajo Nation, Ute Mountain Ute Tribe of Colorado. Southern Ute in Colorado, Northern Ute in Utah, and the Jicarilla Apache Nation in New Mexico.¹⁷ It is very apparent when touring these sites that they are much more than interesting architectural sites, but sacred spaces, active archaeological sites, and in some cases previous burial grounds of indigenous peoples.

Mesa Verde National Park is comprised of several major cliff dwellings that are the most commonly shown images of the park, but are only a partial history of the site. During my research there I visited many sites, the most important discussed in this essay being Square

¹⁷ Verde, Mesa, and National Park. *The 26 Associated Tribes of Mesa Verde*.

Tower House, Long House, Cliff Palace, the mesa top dwellings, and the Sun Temple. These sites were all explored on my journey and were all crucial in the comparison of all culture typologies but also to the ruins explored at Chaco Canyon. At Chaco Canyon I was able to visit Pueblo Bonito and the surrounding kivas. The Kiva is the ceremonial multi-purpose gathering room that can be found at both sites, and are critical to the understanding of sacred religious practices and familial traditions found at both sites.



¹⁸Great House, Chaco Canyon National Historic Park

Chaco Canyon is situated in an incredibly arid high desert climate with short growing seasons and unreliable water access, yet it flourished as a society in the mid-800s to the 1100s.

¹⁸ Personal Image. Author

During this period the Chaco people built *great houses*, which were structures for public affairs, administrative centers, and kivas. These great houses including Pueblo Bonito, were pre-planned constructions made of skilled masonry. Little is known about the reason for these grand public works of architecture, but speculation continues about the Chaco cultures extensive turquoise network which evidence has shown could've traded as far south as Central America, with one story claiming to have found macaw feathers and various types of turquoise all only found in extreme south regions such as Costa Rica. While not much is known about the demise of the Chaco people at this site their culture continued and is traceable directly to other native American sites including Mesa Verde. Mesa Verde was also similarly abandoned in the late 1200's. Mesa Verde however was a cultural and economic hub for more than 700 years before this abandonment and the cliff dwellings were only one evolution of the living conditions of the people on this site. The main similarity between these sites is the use of the kiva, the sun temple layout and the intense masonry construction that was used for defensive purposes as well as to display the political power of a thriving society. The complex astrological alignments, use of rare natural resources, and grand public structures all suggest that these societies valued architecture not just as a tool for shelter but also as a way to show advanced technological skill, craftsmanship, and power.

Site, Orientation, and Context



¹⁹Long House Facing the Winter Sun, Mesa Verde National Park

Arguably one of the most important aspects of the success of these two Puebloan sites is their orientation to sun patterns and climactic site choices. Every great house in Chaco canyon, cliff dwelling, or religious site corresponded in some way to sun or astrological patterns, often both. This important astrological alignment allowed for an amazing architectural display of knowledge and advanced science. It created architectural alignments for temperature control like we can see at long house, it provided deep religious meaning as we can see at the Sun Temple, and it also greatly impacted growing seasons for creating and sustaining a thriving population.

¹⁹ Personal Image. Author

By harnessing the solar and astrological patterns the architecture these societies were able to create projected power through advanced sciences, skilled labor, and control over natural resources.

Seen at Long House, the architecture's direct coordination with climate is immediately noticeable. The site itself, one of the hundreds of cliff dwellings in the park, is one of the largest and thought to have housed one of the larger populations at its time of habitation. Long House is perfectly positioned in the cliff to catch the winter sun, and block the summer sun. Its large natural cliff overhang also provided a crack in the rear wall where a natural spring would provide clean drinking water to the site. This is crucial because it provided a vital resource without ever having to leave the safety of the cliffs. It is important to note also the reasoning that these ancestral Puebloans lived in the cliffs is still unknown. No large wars, wildlife, or other external factors that we know of caused this momentous shift in the living conditions of these people. The Puebloan people originally lived on top of the mesa with the crops that they produced. Many of these cliff top dwellings are pit houses that I was also able to examine while at the site. These houses appear as traditional pits, with covered roofs, a hearth like structure, and again a skilled use of the very rare timber resource. This pit houses along the top edge of the mesa are situated on what is more accurately called a *cuesta*. Mislabeled by the Spanish and not a true mesa, this is called a *cuesta* because it is not flat and slopes perfectly to irrigate crops and also prevent the sun from totally baking the crops that were being grown. The usage and choice of site along this geographic Eden also reinforce the idea that these people were very advanced in their knowledge or crop management and astrological alignment.

Beyond climatic reasoning, the architecture at Mesa Verde and Chaco Canyon also suggests a heavy religious influence, one that firmly enhances the idea that these public and

ceremonial centers were based on advanced astrological knowledge and impressive displays of power. The two excellent examples of this are Sun Temple at Mesa Verde and Pueblo Bonito at Chaco Canyon. Likely the largest purely ceremonial structure built by the Puebloans, Sun Temple proves a vast astrological knowledge in its alignments and also the importance of the sight in its pure scale. With walls of thick masonry that were likely upward of 14 feet tall, the site is also coordinated with the lunar standstill on a 18.6 year cycle, the sunset during winter solstice, and also resides over the largest cliff community at Mesa Verde, Cliff Palace. The palace, which is set 10.7 degrees off axis also features great houses set at each cardinal direction and has coordinating openings in reference to the idea the temple also served as an astrological observatory which was critical to the Puebloan religious practices which dictated crop cultivation and planting cycles. The fire pit within is also illuminated with the first rays of sun during the winter solstice and provides another clue to the importance of these natural alignments with the religious customs of the time and the way that architecture helped frame and facilitate these important rituals of site.

Creating a space that astrologically aligns, meets the sustainable land requirements for a large population, and provides a natural barrier from harsh natural climate is all a way in which architecture facilitated the religious practices and power displays of the indigenous peoples at these sites. Another equally impressive feature of this architecture related to site is also the materiality of the site, or rather the lack thereof during the construction of these impressive living areas.

Materiality, Labor, and Construction



²⁰Interlocking Rooms, Pueblo Bonito, Chaco Canyon National Historic Park

The treacherous nature of these sites is truly the first thing that makes this architecture so vastly impressive and daunting to behold. On my decent via carved footholds, and precariously

²⁰ Personal Image. Author

perched wooden ladders, I was truly enamored by not just the resilience of the people who had to reach these dwellings, but the ability for these dwellings to even be constructed in the first place. The abundance of rock, sand, and masonry items is obvious in construction and there is an abundance of this material in the entire region. However, the Kiva as mentioned earlier is a large circular pit that is covered in a roof, and is one of the most important architectural elements of a great houses. No stone is large enough to cover this opening, and if there was one it would be too heavy to move. Therefore, timber was sourced to create these roof closures. No ladders were constructed at these sites either, because of the scarcity of timber. The timber that was used at Mesa Verde was juniper and pinon trees, which are small, and require significant refinement to be used to span even small distances. Large timber at Mesa Verde and Chaco Canyon likely came from greater distances, at some points even upwards of over 100 miles away. In this way materiality showed great wealth and power in the Puebloans ability to use natural resources to their benefit.

The construction process for these cliff dwellings was anything but simple. The process of transporting material, carving out rock footholds to get down into them, and then taking those materials into crevices to build out dwellings was an immeasurable feat of human spirit. Beyond the sourcing of materials from far and wide, the construction process also showed a determination to move to a more secure location- for what purposes though still remains to be seen. Likewise in Chaco Canyon the much larger grand construction of great houses, also measured the difficulties at Mesa Verde in the arid climate that produced extreme temperatures that combated heavy movement and construction. In both cases the construction practices of each are still under archaeological debate and continued research. Nonetheless, their scale and placement from a construction standpoint proved to be an impressive architectural feat that was

unrivaled by other societies at the time. The immense manpower and time to create these structures also proves the collective societies determination and cooperation in the construction of private dwellings but also public buildings like Sun Temple and Pueblo Bonito. In both of these instances a collective gathered in the creation and construction of a ceremonial and administrative building in order to shower strength and provide important wayfinding for religious activities and cultural life. The construction of these public sites would allow great weather predictions which according to verbal histories were incredibly accurate and allowed the Puebloans to live at Mesa Verde well in 13th century, only being forced to leave likely due to a draught which lasted between 1276 and 1299. During this period great instability and warfare between the tribes, lead to the abandonment of the site after 700 years of continued human occupation.²¹

The defensive, religious, administrative, and dwellings structures found at both sites are also in their own way a timeline of construction and power shifts. At Pueblo Bonito the differing layers and typologies of stone construction also help date the periods of the site. In fact archaeologists have been able to specifically date certain structures to differing periods thanks to the different construction type and stone usage in each dwelling. Similarly at Mesa Verde we can view these timelines through the shift from the upper pit houses down into the cliff dwellings and later defensive structures built along the canyon walls. It is important to note that the construction and development of these sites provides an excellent perspective into the advanced power structures and societal framework that these cultures created. Their architecture in many ways facilitated and transcribed their scientific advancements and helped ensure the survival of

²¹ Park, Mailing Address: PO Box 8 Mesa Verde National, and CO 81330 Phone: 970-529-4465 Contact Us. "Long House - Mesa Verde National Park (U.S. National Park Service)." *Www.nps.gov*, www.nps.gov/meve/learn/historyculture/cd_long_house.htm.

their cultures and peoples for centuries. Therefore, their ability to construct and harness natural materials is equally important to the architecture and to the manifestation of a physical representation of power.

Ritual, Access, and Ceremony



²²Great Kiva, Chaco Canyon National Historic Park

As with many pre-Columbian and ancient civilizations the ancestral Pueblo Indians who lived on these sites were incredibly ritualistic and the access to these sites was vital in the trade networks that helped create sustainable economies. At Mesa Verde these sites were accessed through incredibly complex and often memorized geographical landmarks as well as intricate patterned footholds. Geographically, canyons would fork to different great houses and only

²² Personal Image. Author.

members of those communities would have the pattern of foothold memorized to access them once they arrived. While visiting square tower house at Mesa Verde I was able to see some of these footholds that were carved into the canyon wall, most perched hundreds of feet into the air. These footholds played an important role in transporting materials into the cliff dwellings, but they also provided security in allowing discretion to those who sought to enter the differing cliff dwellings. Women in these societies were often required to gather water and would carry some 40lbs in urns on their heads as they traversed the memorized footholds down into their dwellings. Restricting access through architectural site placement was yet another way in which these dwellings demonstrated power and limited external interference.

Beyond just physical architectural barriers like footholds the rituals that would take place in these dwellings were equally important to the communities and construction of these buildings. While the most important sites in both Pueblo Bonito and Mesa Verde involve the ritual and spiritual behaviors of their respective communities, it is also important to note the architecture also facilitated economic and administrative capabilities. While these capabilities were not necessarily religious, they are important nonetheless to the way in which architecture cemented the influence of those who built it. At Pueblo bonito the massive site likely was a representation of the economic powerhouse of the turquoise trade which had far reaching networks into Central America and beyond. This economic vitality also led to the ability to create civic spaces which further enshrined the power of the Chaco people and would allow their religious and cultural practices to spread to other sites including Montezuma's castle and Mesa Verde. The Kiva was a multi-purpose space whose architectural form was derived by the rituals within it. These spaces were round and meant as a place to pass down oral histories through generations. Within the Kiva are an assortment of important elements key to the rituals of the

architecture. These include niches in the walls, sipapu, and air deflectors for ventilation. The Sipapu were incredibly important to the religious significance of the Kiva in that they represented the original emergent spot of the ancestors. It was around these sipapu in the Kiva that these oral histories were passed down through generations. These sites and histories are still sacred and continually passed down through generations today. It has only come about recently that modern western theorized historians have begun to record and archive these stories as many of them can be referenced and backed up by archaeological findings and known events. This new process of archiving generational Native American stories that were passed down in the Kiva has led to a renaissance in understanding ancestral Puebloan and Southwestern Native American tribal life and history. This is one of the most powerful and compelling ways in which architecture facilitated spiritual and generational ceremonies that in turn preserved and continued a cultural ritual. These rituals imbue the site and architecture with religious significance and also add to the power given to these man-made spiritual sites.

Perched at the confluence of two deep canyons Sun Temple is a prime example of the connection between Chaco Canyon and Mesa Verde. Its architectural form in plan is a D that is also seen in the architecture at Chaco Canyon and Pueblo Bonito. The power of the architecture to embody the religious ceremonies and rituals of the Chaco people is clearly noticeable in that it began to influence people hundreds of miles away in Colorado.²³

²³ "History & Culture - Chaco Culture National Historical Park (U.S. National Park Service)." *Nps.gov*, 2016, www.nps.gov/chcu/learn/historyculture/index.htm.

Conclusion



²⁴Looking Out Across the Valley Floor, Pueblo Bonito, Chaco Canyon National Historic Park

When I begin to analyze this differing American concept of power portrayal it is easy to see the similarities and differences of Native American architecture and ritual space to that of Western religious sites. At the site of Chaco Canyon and Mesa Verde the ancestral Puebloan architecture was rooted in ritual and the importance of astrological and climatic cycles. Whereas the ritual within the National Cathedral was very much programmed into the space, the sites documented here were built solely for and to the efficiency of the ceremonies within. The key difference in understanding the religious architecture of the Native American sites is to begin to dissect the importance of site not just for visibility but for practicality and protection. Beginning to understand how materiality was used in a sacred way and in scarcity to highlight scientific

²⁴ Personal Image. Author.

skill and abilities to utilize natural resources is also a point of difference between these two religious architectural examples. Maybe the most striking difference between the Puebloan religious space and that of the English National Cathedral and later the Spanish missions was that the power imbued into the architecture was done so not through scale but through intimacy and generational ceremony. The religious practices involving the sipapu and the mini-derivatives of the Hopi religious practices are what influenced the highly specialized form and it is this that translated into the sacred power of the architecture.

When considering this alternative to religious construction it is important to consider the astrological alignment, climactic strategies, and creation of intimate specialized religious ceremonial spaces. All of these elements are crucial to the way in which the ancestral Puebloans created thriving societies and projected economic and religious power through alternative architectural strategies.

San Antonio Missions National Historic Park

Spanish Architecture in San Antonio, Texas



²⁵The Last of the Five, Mission San Jose, San Antonio Texas

A Brief History



²⁶Mission Alamo at Night, San Antonio Texas

This UNESCO World Heritage site is made up of five individual and important Spanish missions in and around San Antonio, Texas. This is only one of 26 UNESCO designated sites within the United States, another of which was Chaco Canyon National Historic Park. Most of these missions were built in the early 18th century by the Spanish as walled compounds to convert indigenous peoples to Christianity and established domain over new territory. The five missions are Mission Espada, Mission San Juan, Mission San Jose, Mission Concepcion, and the most famous Mission Alamo. I was able to visit all five of these but found that Mission

²⁵ Personal Image, Author

²⁶ Personal Image, Author

Concepcion was the most valuable example of Spanish religious architecture and so therefore will be referencing it more often, however all missions displayed similar characteristics. It is important to note that this Spanish alternative architecture of power also has a deep connection through mission Alamo to the eventual architectural influences of mission architecture in Texas and the American southwest.

Mission Concepcion is the oldest unrestored stone church in America and still appears much as it did when it was first dedicated in 1755. A large quarry in front of the church was dug and most of the stone in its construction was taken from this very local source. Within this mission several original frescoes are also still visible. It is important to note that while these structures are intrinsically religious, they were also constructed in an effort by the Spanish crown to also colonize the northern frontier of what was New Spain and is modern day Texas. These missions are Catholic but are rare examples of an intertwining of Christian and Coahuiltecan cultures.²⁷ Much like the Chaco Canyon site many of the grounds of these missions are continued archaeological excavation sites. While visiting I was able to talk with students who were out in front of mission San Jose looking for artifacts that would give insights into labor practices and the cultural interchange between the missionaries and indigenous peoples. Using large sifters and searching for pottery fragments these students were meticulously collecting and archiving a list of items found, their material, and what cultures they belonged to. These five missions each exemplify Spanish mission architectural style with some variances including the introduction of Baroque ornamentation on mission San Jose.

²⁷ Centre, UNESCO World Heritage. "San Antonio Missions." *UNESCO World Heritage Centre*, whc.unesco.org/en/list/1466/.

Each of these missions is a prime example of architecture used to establish power under the guise of religious fervor. Each of these missions was built as a compound with a center courtyard and an outer wall to protect the missionaries and also establish a perimeter. The obvious connections to defensive fortifications and military architecture can be seen from the very beginning. I was struck by how imposing these church structures were on the landscapes around them and how each was placed in a fashion to assert dominance over an important geographic area. For example, many of these missions were built along trade routes or rivers in order to gain access to important vital resources and establish connections with local indigenous peoples. These Spanish missions are a great example of how religious architecture can become a tool to not only spread or convert a religion but also be a direct embodiment of political power and ambition. Through adapting local cultural artistic practices, choosing key sites, and creating imposing structures the Spanish used architecture as a political tool to further its colonial ambitions.

Site, Orientation, and Context



²⁸Site of the Illumination, Mission Concepcion San Antonio, Texas

At what was the frontier of new Spain these missions sites were chosen specifically for their intrinsic value to natural resources trade routes and communication with indigenous people groups. These five beautiful examples of mission style architecture form a matrix within the modern day layout of San Antonio. While visiting it is easy to forget that Mission Alamo the current heart of the city at one time was a frontier outpost with significant military fortifications. It's important Texan and American historical significance would come after it had largely fulfilled it's original religious purposes.

²⁸ Personal Image. Author

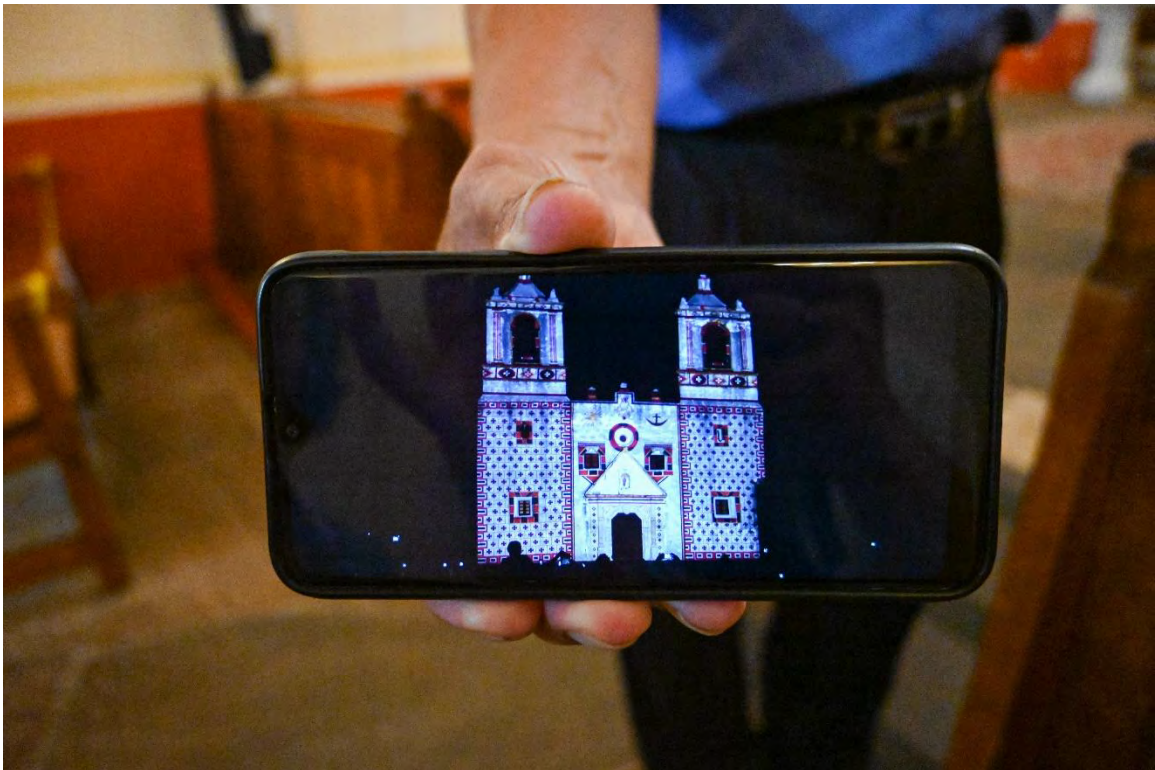
These missions did have contact with one another however each operated as an individual missionary outpost responsible for those within it. Much like the ancestral Pueblo, the Spanish chose these sites for natural resources and fertile agricultural grounds in addition to their proximity to local indigenous peoples.²⁹ Unlike the ancestral Pueblo they did not have the lengthy history to ascertain the absolute best sites to start a thriving society. Despite this lack of local knowledge the missions were successful in converting and fortifying a foothold in the new continent for the Spanish crown. The churches and their defensive compounds were able to protect and communicate effectively with the intended purposes of their construction. While carrying out the duties of conversion they also provided key outposts to see into the local culture of the Coahuiltecan. It is this cultural intelligence gathering that would lead to the churches ornamentation and painting that we can barely see today.

Another incredibly important religious architectural detail was used in the construction of mission conception that went far beyond creating a defensive encampment. Once more in religious architecture the use of astrological and site orientation would create an architectural and scientific marvel that takes place within the mission. For purposes beyond simply programmatic or defensive reasons the orientation of mission conception is directly in correlation with key astrological significance that is still not fully understood by modern Spanish historians. The Spanish Franciscans who created Mission Conception oriented the building so that on the winter and summer solstices a double illumination would occur through the rear rose window of the mission and illuminate the crossing square of the nave and transept as well as the face of the painting of the Virgin Mary along the back wall of the altar. According to Mission Conception's

²⁹ Antonio, Mailing Address: Headquarters 2202 Roosevelt Avenue San, and TX 78210 Phone:932-1001 Contact Us. "Mission Concepción - San Antonio Missions National Historical Park (U.S. National Park Service)." *Www.nps.gov*, www.nps.gov/saan/planyourvisit/concepcion.htm.

caretaker this is the only example of a double illumination within a Spanish mission that occurs every year at exactly the winter and summer solstice even in occurrence with leap year. While I was not able to view this illumination, I was able to see photographic and video evidence of this exact phenomena that occurred at exactly the same day and time each year. This added architectural detail is a wonderful example of clear advanced scientific knowledge and its application to architecture. this seemingly miraculous act of God is yet one more way in which the architecture actively seeks to portray the power of God and therefore the power of those preaching it. Similar singular illuminations can also be found in other Spanish missions.

Materiality, Labor, and Construction



³⁰As it was, Mission Concepcion Original Color Scheme as shown to me by Mission caretaker, Paul. San Antonio, Texas

³⁰ Personal Image. Author.

Another very important way in which the Spanish missions encourage intercultural dialogue while also carrying out the objectives of the church is through the materiality of the construction itself. Mission conception although today has a seemingly blank façade at one time was an incredibly vibrant and ornately patterned spectacle. Using traditional dyes and pigments found in the local area the Franciscans were able through the help of the indigenous peoples to create colorful architectural expressions that spoke to the Spanish mission but also the traditions and cultures of the Native Americans. These original pigments were discovered and passed to the Franciscans by the Native Americans and can still be seen in their original form inside the mission. The exterior pigments have worn away due to excessive heat and humidity in the climate of South Texas, but through clever projection are recreated once a year in their original form for all to see.

Most of these missions were built out of locally sourced material and in some cases the material directly off the site as is the case of mission conception. With local quarries these missions did not have the complications of sourcing natural materials that the ancestral Pueblo Indians encountered. Because of this abundance of natural resources, the Spanish were able to create edifices that resembled Spanish architecture and was drastically different than the local vernacular architecture created by the Native Americans. The combination of this Spanish architectural construction with the addition of the native pigments created a hybrid architecture that can only be seen in the San Antonio missions.

Another crucial way that these missions asserted power over their new regions was in their acquisition and control of natural resources beyond just building materials. These missions also constructed and operated aqueducts and dams within the San Antonio region. The hand dug

Espada aqueduct is the oldest Spanish aqueduct in the United States and connects water day to the mission Espada even today. This Six Mile aqueduct contains two arched piers and was built in 1740. This exemplary feat of engineering only solidified the permanence of the Spanish missions and allowed them to continue to flourish within this territory of New Spain. Likewise the Espada Dam constructed in 1745 is the last remaining dam built for the Spanish missions. this impressive dam and acequia uses gravity to help ensure water reaches the missions. This specific dam was critical in the agricultural advancements and farming that would sustain the new settlements.



³¹Espada Aqueduct, Mission Espada San Antonio, Texas

³¹ Personal Image. Author.

One critical part of the construction process of these missions was also the labor force that was used. Unlike the English and ancestral Pueblo and religious architectures these missions were not in fact wholly constructed by the culture that benefited from them. In fact the majority of these missions unskilled labor forces were built by Native American workers, the very people the missions were trying to convert and control. While no history is detailed that explicitly states the workers conditions or pay it is up to scholarly debate to what level they were compensated.³² These grand novel examples of European architecture were imposing and fortified onto the land and served as a permanent reminder of the Spanish control over everything in their domain. The construction of these missions provide another facet to the mechanism by which architecture asserts power, labor.³³

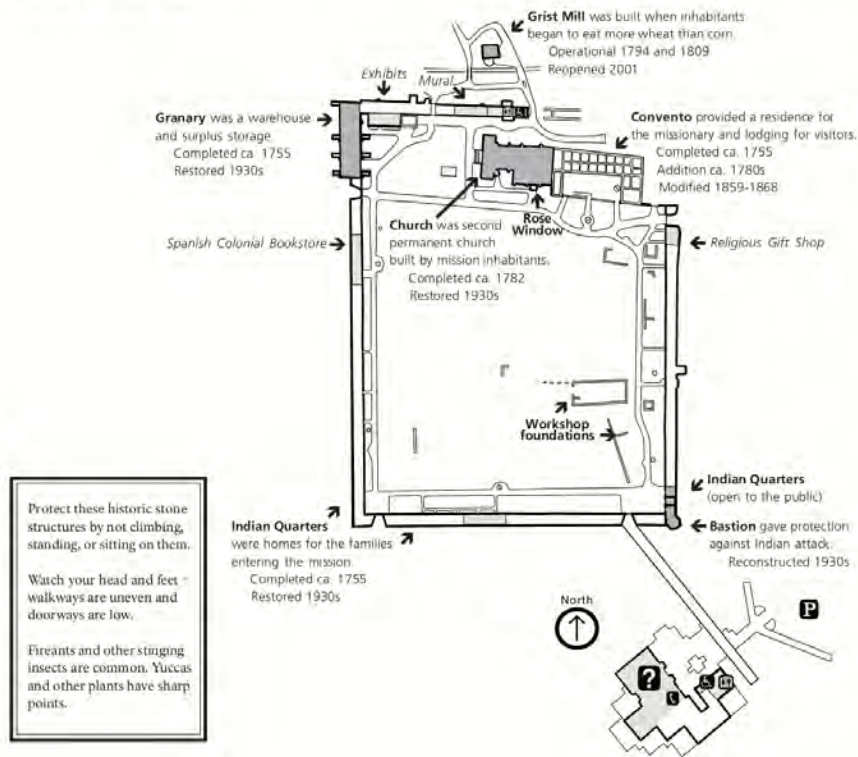
The Mission's usage of local pigments, traditionally Spanish architectural construction, and advanced agricultural water mitigation systems allowed these frontier settlements to serve the purposes of the Spanish crown and help colonize this new territory. In these ways the construction and labor only reinforced the architectures religious exemplification of political power over the territory.

Ritual, Access, and Ceremony

³² Kitchens, Joel, et al. *SAN ANTONIO'S SPANISH MISSIONS and the PERSISTENCE of MEMORY, 1718-2015 a Dissertation*. 2016.

³³ *Npmaps.com*, 2021, npmaps.com/wp-content/uploads/san-juan-capistrano-map.jpg. Accessed 10 Dec. 2021.

Mission San José Today



³⁴Plan of Mission San Jose as it is today. Map courtesy of the National Park Service.

While these missions initial goal of religious conversion is clear so too is the agrarian lifestyle that also was so intrinsically connected to these outposts. These missions served their religious purpose while also creating spaces for new agricultural expansion. These compounds in many ways were walled religious settlements that depended on water access and fertile crop cultivation. The Spanish walled compound architecture served the missionaries, farmers, and military personnel that inhabited them. This created a unique point of entry and access between the Spanish and the native populations. It is important to remember that this intercultural dialogue was not always peaceful and in many cases like at mission San Jose a bastion had to be constructed to repel Native American attack. There the historic stone square bastion provided a large green interior space that was adjacent to the church, granary, gristmill, and convento. This

³⁴ *Npmaps.com*, 2021, npmaps.com/wp-content/uploads/san-antonio-mission-san-jose.gif. Accessed 10 Dec. 2021.

plan can be seen replicated at the other missions across San Antonio. Often the largest architectural scale of these sites was the defensive fortifications that encircled them. The church can often be seen peering out over top of the walls but yet still protected by them. This is a strange militaristic dichotomy to an architecture whose original intent was religious and peaceful.

A final detail regarding access to these missions involves the construction of temporary apartment like homes for indigenous people. These thatched roofed “jacales” were constructed to house converts and were eventually incorporated into the outer walls of the mission as it expanded.³⁵ While incredibly militaristic in overall plan and layout the introduction of these jacales also serve as an introduction to Spanish culture for the indigenous populations. This housing was a way to convert but also introduce these people to a new religion and way of life.

³⁵ *Npmaps.com*, 2021, npmaps.com/wp-content/uploads/san-juan-capistrano-map.jpg. Accessed 10 Dec. 2021.

Conclusion



³⁶From the Well, Mission Espada San Antonio, Texas

No place that I visited had a clearer connection between religion, political power, and architecture. Through interweaving of cultural practices, introduction of European architecture, extensive fortifications, advanced agricultural engineering, and native workforces the Spaniards were able to root themselves in a new territory and use architecture as a permanent reminder of religiosity and regional dominance. The Spaniards use of architecture as an armature of religion

³⁶ Personal Image. Author.

and religion as an extension of state provides a clear delineation of the extreme ways in which the built environment can assert and reinforce power.

Unlike examples at Mesa Verde where spiritual architecture is about intimacy and community, the religious architecture of the Missions is about force and permanence. Like the English cathedral the scale of the architecture is important in expressing power, but opposingly it is the programmatic elements that make up the entire religious site not the cathedral itself that provide a ritual and hierarchy of power.

Byodo-In Temple, Kahaluu, O'ahu

Japanese Fujiwara Regent Period Replication, O'ahu Hawaii



³⁷ Byodo-In Temple and Gardens

³⁷ Personal Image. Author

A Brief History



³⁸Across the Pacific, O'ahu Hawaii

The Byodo-In is a Buddhist temple complex in the city of Uji in the Kyoto prefecture of Japan. Built in the late Heian period this is one of the most recognizable traditional Japanese architectures on Earth. The Phoenix temple within the Byodo-in complex is a main source of Japanese pride and architectural achievement.³⁹ In order to commemorate the 100th anniversary of the first Japanese immigrants in Hawaii a scaled replica of this Buddhist temple was constructed at the base of the mountains in Kahaolu, Hawaii. This temple and its gardens are one of the only traditionally Japanese architectural representations in America.

³⁸ Personal Image. Author

³⁹ "Byodo-In." *World History Encyclopedia*, www.worldhistory.org/Byodo-in/.

This site was chosen because it represents the 4th alternative cultural representation of religious architecture displaying power on American soil. While this architecture was not built specifically by the nation of Japan it does represent the architectural style, details, and quality that are traditionally found within Japanese Buddhist temple complexes. Unlike the English, Spanish, or Puebloan examples, the Japanese never controlled land within the modern border of the United States. Japan did however play an important role in the cultural history of Hawaii and has a complex history with the United States after World War II. Japanese architecture is a representation of craftsmanship, serenity, but also the relationship between religion and political power. Given the possible alternative outcomes to world conflict and the unique characteristics of Japanese architecture it was for this reason that this temple was chosen as the 4th alternative architecture.

This temple complex was established in temple Memorial Park on June 7th, 1968. The site is made up of the temple itself, gardens, a large fish pond, and a bon-sho (sacred bell). The landscape was designed by Kyoto Landscaper Kiichi Toemon Sano⁴⁰. Also Residing within the temple on site is an 18 foot gold covered Buddha statue which sits on axis with the arched bridge used to enter the site.

⁴⁰ "Byodo in Temple." *Go Hawaii*, 14 Feb. 2017, www.gohawaii.com/islands/oahu/regions/windward-coast/byodo-in-temple.

Site, Orientation, and Context



⁴¹Bon-Sho, Byodo-In Temple, O’ahu Hawaii

This architecture is distinctly different from the three previous examples in that its site while picturesque is only due in part to the immigrants who came to Hawaii not in an immediate need to forecast power or dominance, but to create cultural ties. The site while laid out in a traditional Japanese garden complex is not set in a specific context to claim or control the site but to harmoniously embed within it. The Japanese architecture of the temple sits at the base of the large mountain and views directly out in the direction of the sea. The tranquility of this site in many ways is the immediate connection between the religious and cultural importance of the architecture. This “soft power” architecture provides a stark contrast to the ways in which the three previous examples all imbued religious power.

⁴¹ Personal Image. Author.

The historical context of this architecture is its most significant attribute. The Phoenix Hall in Uji, is the last remaining example of Fujiware Regent Period Japanese architecture and is therefore considering of great cultural importance to the people of Japan. This building therefore being chosen to replicate on O'ahu places the important historical context in commemorating a tumultuous past between the United States, Japan, and Japanese American Immigrants. The selection therefore of architecture style and in this context is the main focus of how this architecture grapples two complex histories and brings them together in Buddhist tradition to have reconciliation.

The positioning then of this traditional Japanese architecture on the site is meant as a permanent reminder, as seemingly most of these religious architectures of the valuable connection between religion and peoples. In this case a religious architecture was constructed to reinforce the Japanese immigration to Hawaii, a non-religious act. The religious architecture's power then due in part by its architectural style but then too by its placement in the American Context.

Materiality, Labor, and Construction.



⁴²Harmony, Byodo-In Temple, O'ahu Hawaii

It is here too we see yet another divergence from the other examples in that this building, being constructed in the latter half of the 20th century, is rather modern compared to the other examples. The Byodo-In temple in O'ahu was not built solely using traditional Japanese building

⁴² Personal Image. Author.

techniques, or even Japanese sourced materials, rather it was a replication of an architectural style in a foreign context. The question then, is how is this a religious exemplification of power in architecture? However, this is a prime example of the power of architecture and its direct connection to national identity. The “Japanese style” of architecture that we so commonly think of when referenced in various media, is actually that of Buddhist architecture that was shared from ancient Chinese culture. This architecture became distinctly Japanese in its proliferation throughout the island nation of Japan after the Tang Dynasty in China heavily influenced Japanese and Korean culture. Once widespread and adopted over centuries this architecture became synonymous with the very political institutions that followed Japanese Buddhist doctrines. So when it came time to memorialize the immigration of Japanese to the island of Hawaii, the architectural style chosen to represent this achievement was none other than the religious architecture that had become so connected to the very fabric of Japanese identity. It is this way that once more the soft power of this religious site is through the material traditions and stylistic cultural connections to Japanese political power in architecture.

The construction process of this and the labor used represent a more homogenized practice that comes with the globalization after World War II. No longer siloed cultures building architecture, these religious buildings were an important symbol of not just tradition but progress.

Ritual, Access, and Ceremony



⁴³Bronze Buddha, Byodo-In Temple, O'ahu Hawaii

Byodo-In translates into “Temple of Equality” and this is a fitting name to this site as access to this site is encouraged and not at all restrictive based on class or religion or community. In regards to ritual however it is here that similarities to other sites begin to arise once more. The very traditionally Japanese garden complex is entered and experienced through a strict pathway and sequence that allows the entire site to be interacted with. In this way the ritual of site reinforces the architectures presence and spiritual significance. While not a practicing Buddhist temple, this site does however possess a bon-sho and buddha statue. The bon-sho, sacred bell, is rung by every visitor and is meant to encourage happiness and longevity. It however also

⁴³ Personal Image. Author

provides an element to the architecture only previously seen at the National Cathedral, sound. The bell here is rung with great frequency and is in that way much different than the time demarcation or celebrative chimes of the National Cathedral's bells. This noise reverberates through the entire site so often and with such harmonious chords that it becomes an intrinsic part of the site itself. The bells importance to the creation of place and atmosphere is yet a final way that architecture can reinforce emotion and connection to religion.

After experiencing the bell, one circumambulates the site around the koi pond and into the wing of the temple. Here shoes are removed, and you may enter the central chamber and experience the large buddha statue. Incense is burned and once more the intimacy of the space conveys the true religious nature of the architecture and of the place itself. It is not the monumental scale of the religious architecture, but the reverence and ritual of the site that creates and evokes emotion within the visitor. The smell of the incense, the ritual of shoe removal, the sound of the bell all coalesce at this site in celebration of the Japanese culture and achievements. All within this beautifully manicured site and temple complex can the power of this religious architecture be felt. The celebration of Japanese practice and serenity in tradition is the architectures pathway to creating inner dialogue and supplement the power of the Buddhist religion.

Conclusion



⁴⁴Symmetry, Byodo-In O'ahu, Hawaii

The ceremony of accessing the site, moving throughout it, and truly using all the senses is what makes this site's rituals and architecture truly unique. Unlike the past examples it is here where the architecture plays almost a backdrop and canvas to the ritual and stands only as a replication of an exemplary architectural tradition and link to the culture that it is in celebration of. The religious power of this site is in the very tradition of traditional Japanese architecture, and that is the connection to nature and the ritual of meditation and harmony.

⁴⁴ Personal Image. Author.

Understanding the Different Ways Religious Architecture Represents Power



⁴⁵Square Tower House, Mesa Verde National Park

⁴⁵ Personal Image. Author.

When I began this research, I couldn't have imagined the radical differences and shocking similarities that transpired between such contrasting architectures. Each site was a religious institution for the culture it represented, and yet each one effected its inhabitants in a profoundly different way. Each adapted some usage of site, orientation, materiality, and ritual, and yet each one accomplished its goals very differently. While seemingly sharing similar goals of advancing religious power through architecture, each also inherently proved the astonishing much broader capabilities of architecture. It places an incredible burden then on the architect, to stay humble, and to remember these lessons when trying to create similar scenarios of religious wonder.

I had some preconceived notions going into this, that each site in some way was doing the same thing, making something impressive, using extravagant materials, and then showing off their capabilities and superiorities over others. However this was simply not at all the case. Each architectural trajectory represented a physical manifestation of a culture and religious identity. On the surface each one was a building, each one was religious, each one belonged to a different religion and culture. Yet, after visiting them and after researching the mechanisms by which these architectures accomplished their goals, it cannot be clearer how seemingly foreign and yet American these examples of religious architecture truly are. Likewise understanding how each culture's solution to portraying religious power would not have worked across cultures. The intimacy of the Kiva in facilitating generational oral histories and spiritual ancestor connections, would not have provided the same impact as the monumental scale of the National Cathedral overlooking Washington DC. The serenity of the Buddhist temple and its gardens would not have had the same effect to the Spanish Franciscans in the conquest and conversion of New Spain. But yet, each of these architectures accomplished a similar goal.

This research highlighted the importance of religious architecture to not just mimic an architectural style but to go beyond the façade, and accomplish a task greater than just being a building. It must become an organism that can influence and have a conscious of its own. The National Cathedral proved the importance of scale and site in connection and influence of religion and state. The ruins of Mesa Verde and Chaco Canyon provided key insights into how communities and shared experiences shape our most intimate spiritual places. The Spanish missions of San Antonio exemplified the ways in which architecture can truly work directly for the state and a religion simultaneously. And finally the Byodo-In temple in O’ahu illustrated the incredible religious power of architecture to reference culture but to also to engage the senses to bring about harmony.



⁴⁶Sacred Entrance, Mission San Jose San Antonio, Texas

⁴⁶ Personal Image. Author.

Spending these past few months exploring these sites, researching their history, and photographing their many details, has greatly impacted my life and architectural ambitions. These four sites challenged me to go beyond the form and stylization, and deepen my belief in the power of architecture to control and mend the human experience. It is never easy to describe, create, or define the feeling and emotion of a religious architecture, but it is necessary if we wish to continue to create spaces that speak to the soul. While not all architecture uses its innate power for altruistic reasons, it is by knowing and researching all trajectories that we can continue to make great architecture that is not siloed to one history. All architecture whether religious or otherwise should be multidimensionally extraordinary. This research challenged the notion that all religious architecture is the same and persuades the viewer to see the beauty in different cultures architectural expressions. It also showed that even within the American context varying trajectories and cultures all use architecture in different ways to represent and spread their religious ideals. Whether through scale, community, materiality, or harmony it is up to architects to understand religious architecture to continue to create inspirational spaces. By knowing and implementing all these different facets of architecture we can begin to answer the question of how architects can shape the religious experiences of tomorrow.